Canadian Grain Commission Commission canadien des grains

Program Review

Canadian Grain Commission

January 1999

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MESSAGE FROM THE CHIEF COMMISSIONER

The Canadian grain industry is undergoing fundamental change. Globalization, technological advances, corporate mergers, economic upheavals, and shifting markets are driving a revolution in Canada's grain sector. The Canadian Grain Commission is not immune to these influences. At a time when the pace of change seems to be accelerating, we are working especially hard to anticipate the future needs of our clients while at the same time continuing to meet their current requirements.

Balancing present requirements with future demands requires great flexibility. For a government agency, much of whose mandate is enshrined in legislation and regulations, it is often difficult to achieve this flexibility.

Charting a course for the future is, indeed, a challenge. For that reason we embarked upon a comprehensive review of our programs and services. This report represents another phase in the process of providing the CGC with the capacity to meet current needs and the flexibility to adapt to future demands of our clients—producers, marketers, grain handlers, plant breeders, processors and end-users of grain.

Over the past three months the CGC, with the advice and assistance of many clients, has been examining its services in this light. The objectives have been to confirm our responsibilities and design an updated package of programs to ensure our services remain effective, economical and efficiently delivered.

Over the next six weeks, we will consult widely in order to refine our proposals and develop a framework for the organization that equips us to meet the requirements of today, and positions us to adapt to the demands of tomorrow. Following our consultations, we will develop a new fee structure based on the proposals contained in this report and the input we receive in our consultations. Some recommendations in this report can be implemented by the Commission without changes to the Canada Grain Act and Canada Grain Regulations. Others will require legislative and regulatory amendments. Of necessity, this will be a lengthier process than changes that are within the CGC's authority.

I wish to express my deepest gratitude to the management and staff of the CGC and to all of the industry and producer participants whose efforts are reflected in this report.

Barry Senft
Chief Commissioner
Canadian Grain Commission
January, 1999

INTRODUCTION

This report is the culmination of three months of information gathering and analysis by seven working groups, composed primarily of CGC staff, who consulted extensively with our clients throughout the industry. It represents another step in the comprehensive reshaping of the organization, the objective being to position the Canadian Grain Commission to adapt to the rapidly changing needs of our producer and industry clients.

While CGC staff at all levels have contributed information and analysis to this review, the recommendations presented in this report are the decisions and the responsibility of the CGC's Commissioners and senior managers.

The CGC confronts serious fiscal problems, summarized on page 55. Briefly stated, unless we make some significant changes, we face an operating deficit of approximately $10 million dollars this fiscal year, and ongoing annual deficits of $5 to 7 million for the next few years. Our fiscal dilemma is rooted in our funding structures in combination with the fundamental changes sweeping over Canada's grain industry.

Once such fundamental change was the repeal of the Western Grain Transportation Act , which took effect August 1, 1995. As a result, producers were required to pay the full freight rate for grain. This changed the economies of exporting grain. It encouraged value-added processing on the prairies, leading to expansion in livestock and grain processing industries. As well, it encouraged direct exports of grain to the U.S.

While this is a positive development for the industry, it reduced dramatically the export of grain through terminals. Between 1991/92 and 1994/95, terminal receipts averaged 28.5 million tonnes annually. Since then the annual average has been 22.8 million tonnes, a 20 per cent decline. This occurred despite a small increase in the amount of grain produced. As well, exports of grain to the U.S. have grown from 1.2 million tonnes annually in 1991/92 to 3.0 million tonnes in 1997/98.

This has presented a serious problem for the CGC because its revenues depend on the volume of grain handled by licensed port facilities. We do not expect this export trend to change in the foreseeable future.

Not only is this a problem for the CGC, it is a problem for all of our clients for at least two reasons. First, under the current fee structure, the quality assurance system is funded disproportionately by exporters shipping grain via port terminal elevators. This is unfair, because it means that one part of the industry is paying for benefits received by all participants. Second, this over-reliance on outward inspection and weighing

fees means that, when revenues from these areas decline, all other elements of the quality assurance system are undermined.

The answer to this problem, in part, is to restructure the funding base of the CGC according to the principle that the clients who benefit from the services should pay for them. In our view, there are three categories of costs which should be recognized

- Public interest services: these have costs which should be paid by government appropriation because they are for the general benefit of Canadians; services associated with grain safety and certain types of research would fall into this category. For more discussion of this concept, go to page 25.

- Quality assurance system services: these are services which provide shared benefits for all of the industry; they should be paid for by a quality assurance fee. There is some discussion of this approach on page 6 and there will be much more discussion in the coming months. The basic principle is one of fairness: those who benefit should pay a fair share. The introduction of a quality assurance fee would be offset by reductions of other fees which now are used to subsidize programs which benefit all participants in the grain industry.

- Client specific services: these are services which are directly requested by clients. The Commission proposes that these types of services ought to be offered only as long as there is a market for them. There are numerous examples of those kinds of services and we estimate they are worth between $2 and $3 million annually.

Often, there is considerable overlap between the three categories of services; the benefits of a given service may be shared between specific clients and the grain industry in general, or between the public interest and a specific sector of the industry. Throughout this review, we have tried to determine where there are shared benefits and to apportion the costs accordingly. Discussion of how to apply this rule appears throughout the report.

Funding structure reforms are an important part of becoming financially stable. However, they are not the whole answer. Of equal importance are measures to make the CGC more efficient and cost effective. Numerous recommendations are made throughout the report, and numerous others will come to light as we conduct our review of internal services. This latter review will be completed in February 1999.

We believe that significant efficiencies and savings can be achieved through the reorganization and streamlining of inspection and weighing services. Proposals contained in this report (Inspection, page 7, and Weighing, page 18) will reduce the CGC's operating costs by approximately $3 million. This reduction, which involves the

loss of 60 to 70 jobs at the CGC, carries with it the requirement that our clients work with us to make adjustments to the way in which we deliver these services.

Not only must we do things right, we must ensure we are doing the right things. In our review, some clients told us that certain of our services, for example inward inspection and weighing services, are no longer essential and ought to be made voluntary. We believe that longer-term efficiencies may be made possible by a proposal to offer inward inspection (page 12) and the grain receival service (page 19) on an optional basis. These and other reforms are complex; they will require operational adjustments as well as amendments to the Canada Grain Act.

This report contains dozens of recommendations, all of which merit careful consideration. However, to facilitate your reading of this report, we have highlighted several of the more significant proposals.

Highlights

- By August 1, 1999, the CGC proposes to provide centralized inward inspection services at Thunder Bay and on the West Coast which will provide quality safeguards and dispute settling capabilities at reduced costs (see page 12).
- Where practical, "flying squads" will provide outward inspection and weighing services at terminal elevators. (see pages 15 and 21).
- In the longer term, the Canada Grain Act should be changed to provide more flexibility in defining the mandatory inspection and weighing requirements necessary to meet the needs of an evolving industry (see pages 12 and 19).
- We propose modifying the grading system to provide for a single standard for each grade (see page 8).
- The CGC proposes to phase in a quality assurance fee which would be assessed at the point of delivery of grain into the licensed handling system. This fee would enable the CGC to reduce other fees which fund a disproportionate share of the quality assurance system (see page 6).
- We are proposing a number of efficiencies to reduce the costs associated with the setting of grain quality standards (see page 8).
- We recommend that the inspection of submitted samples be provided on a cost-plus basis (see page 9).

- Our proposed co-location and cross-utilization of inspection and weighing staff at terminal elevators will reduce costs (see page 12).

- We recommend that reinspection and appeal of grain grades be performed on a cost-recovery basis (see page 14).

- We propose that grain weighovers at licensed terminal and transfer elevators be made optional in the long term and the service provided on a cost-plus basis (see page 23).

- We propose that scale inspection at terminal and transfer elevators be provided on a cost-plus basis; failing that, we propose it be transferred back to Measurement Canada (see page 24).

- In the area of research, we have suggested which work provides major public benefit and should be funded in whole or in part by the appropriation funding from government. We have identified other research activities fundamental to the quality assurance system which should be funded in whole or part through Commission inspection fees. Still other research activities provide significant benefits to identifiable users and should be funded in whole or in part through fees to those users (see page 25). These research funding proposals are summarized on page 26.

These and other recommendations for short and long-term change are only proposals at this point. The Commission will consult widely. Following this consultation, the CGC will approach the federal government in February, 1999 with recommendations for legislative, regulatory and funding-related changes.

Revenue and Resources Levels

Information pertaining to costs, expenditures and person years is approximate and figures have been rounded. Overhead costs are reflected in the expenditure figures, but not in the person year estimates.

Acronyms

A number of acronyms which appear in the text are defined below

- AAFC Agriculture and Agri-Food Canada
- CFIA Canadian Food Inspection Agency
- CGC Canadian Grain Commission
- CS Corporate Services (division of CGC)
- GIAS Grain Inventory Accounting System
- GMO Genetically Modified Organism

- GRL Grain Research Laboratory (division of CGC)
- GRS Grain Receival Service
- IS Industry Services (division of CGC)
- ISO International Organization for Standardization
- KVD kernel visual distinguishability
- MOU memorandum of understanding
- NIR near infrared reflectance
- PRRCG Prairie Registration Recommending Committee for Grain
- RIOT rapid instrumental objective testing

DISCUSSION AND RECOMMENDATIONS

The report contains dozens of recommendations specific to given services; however, a number of recommendations have a broad application across the CGC. These include accreditation, funding of core services, customized services and a quality assurance fee.

Accreditation

Accreditation of companies to provide services now offered by the CGC will be explored in future where it makes good sense. For example, it may be desirable to accredit laboratories to provide analytical services which the CGC cannot provide efficiently.

Funding of Core Services

We recommend that core services of the CGC be funded on a cost recovery basis. We define cost recovery as the direct and overhead costs associated with a service.

Customized Services

We recommend that customized services be offered as an add-on to the base level of any service offered by the CGC. These services would be available upon request on a cost plus basis. We define "cost plus" as the direct and overhead costs associated with a service, plus a contribution to an operating reserve.

Quality Assurance Fee

A long-term goal of the CGC should be to finance the quality assurance system through a quality assurance fee assessed on grain at the point of delivery into the

licensed handling system. This fee would ensure that all who benefit from the quality assurance system play a role in supporting it. Another benefit is that it would allow the CGC to reduce the fees for other services which now pay a disproportionate share of the costs of the quality assurance system.

A phased approach is necessary. We propose, therefore, to restructure the fees at terminal elevators to separate out the quality assurance component of services, effective August 1, 1999. We would immediately begin discussions with stakeholders on the merits of moving this fee from terminals to licensed facilities where grain first enters the system. Our objective would be to have this move take effect August 1, 2000.

ISO Certification

The CGC proposes to seek International Standards Organization certification for most services. Initially, we would seek this certification for our grain standards, outward weighing and outward inspection services.

Inspection

General Recommendations

The CGC believes that grain standards form the basis of Canada's quality system and are usually the basis for trade in grain. Outward inspection performed at licensed terminal and transfer elevators is the key to Canada's reputation for grain quality. Therefore, we do not recommend any changes that will detract from the CGC's effectiveness in these two areas.

We recommend that customized service be offered as an add-on to the base level of any inspection service offered by the CGC.

Grain Standards

Revenue	Resource Levels
None	Expenditures: $515,000 Person Years: 3

The CGC is responsible for the preparation of visual grading guides and primary and export standard samples for use by the Commission and the industry. The CGC is also responsible for eliminating grades, recommending new grades, and changing the specifications of grades to accommodate new industry marketing or handling needs. The CGC ensures that grade standards and procedures are consistently applied

throughout the Commission and the industry. Western and Eastern Grain Standards Committees provide advice and recommendations on standards.

Setting grain standards allows product segregation that adds value by keeping distinctly different products and qualities separate. The end-use quality testing sections of the Grain Research Laboratory (GRL) play an important role in this process. This service is part of the CGC's core mandate.

Recommendations

Grain standards form the basis of Canada's quality system. While the industry is moving toward a system of grain trading based on specifications, a large portion of grain will continue to be traded on the basis of standards for the foreseeable future. Therefore, the CGC should continue to establish and maintain standards of Canadian grain quality. However, the CGC recommends changes to make the setting of grain standards more cost effective, timely, and objective and to accommodate explicitly the grading and analysis of grain based on specifications.

In the short term, the setting of standards should be financed through outward inspection fees, including fees for official inspections at locations other than terminal and transfer elevators and direct hit shipments. A long-term goal of the CGC should be to finance the setting of standards through a quality assurance fee assessed on grain at the point of delivery into the licensed handling system.

Specific recommendations for changes to the system of standards which should be implemented August 1, 1999 are

1. Modify the grading system to provide for a single standard for each grade. This will replace primary and export standards with a single standard to be used at all levels in the industry and will encourage the movement of clean, high-quality grain into the handling system. Note: Research shows that between 85 and 97 per cent of deliveries at terminal elevators currently meet export standards.

2. Where appropriate, create new standards that reflect the quality of production. For example, create a new standard for feed peas that accurately reflects the quality of production capabilities.

3. Formalize a process to enable companies and marketers to register specifications and samples with the CGC to allow the CGC to arbitrate and certify based on those specifications and samples. The Canada Grain Act allows for this and the CGC already provides this service on an *ad hoc* basis, but should be offering it as a routine service.

Other short-term recommendations to improve the efficiency of setting standards are to

1. Use a wider range of guide samples (including photographic guides) to replace or augment standard samples.

2. Review standards on a rotating basis (which would be determined according to crop conditions) and supplement them with guide samples as required.

3. Address lower grades annually, using GRL samples to assess needs depending on the crop conditions.

4. Develop a process to collect samples more efficiently.

Longer term recommendation that the CGC should begin working on immediately for implementation by August 1, 2000 are to

5. Develop a system of numerical tolerances, specifications, or definitions to replace standard samples and use photographic guides to augment the new system.

6. Seek ISO 9002 certification for the process of setting grain standards.

Grading Submitted Samples

Revenue	Resource Levels
$1,384,000	Expenditures: $2,309,000 Person Years: 30

Producers and/or grain companies across Canada may submit samples of their grain to the CGC for grading. A certificate is prepared showing grade, dockage, moisture or protein, and the reason for the grade. Grading submitted samples is not legislated in the Canada Grain Act and is not part of the CGC core mandate.

In western Canada, producers delivering grain to a primary elevator may ask to have the sample graded "subject to an inspector's grade and dockage." This service is available to producers and elevator managers in cases where they cannot agree upon the grade of the grain. "Subject to inspector's grade and dockage" is a producer right enshrined in the Canada Grain Act and is part of the CGC core mandate.

Recommendations

The CGC should continue to offer the submitted sample service. However, the service should only be offered on a cost-plus basis. "Subject to inspector's grade and

dockage" is a statutory right for producers at primary elevators and should be offered by the CGC on a cost recovery basis.

Specific recommendations to improve the submitted sample service (excluding "subject to inspector's grade and dockage")

1. Restructure the fees for submitted samples.

2. Strengthen the concept of "core groups" of people to specialize in different grains and/or products in each region, especially at port locations for the grading of special crops.

3. Eliminate the distinction between regular and guaranteed submitted samples so there is only one sample type as opposed to two different sample types. Make it clear to users of the service that the sample is to be representative of the lot of grain. This will allow us to streamline the process by having only one official grade certificate as opposed to two certificates (the I-7 and the I-12) for basically the same service.

4. Increase awareness of the submitted sample service through marketing initiatives.

Specific recommendations for grading samples "subject to inspector's grade and dockage"

1. In the short term, advertise the "subject to inspector's grade and dockage" service more aggressively. Advise producers delivering to special crops dealers that the CGC is available to review their samples and provide a grade to assist them in marketing their grain or in resolving disputes with grain companies. Advertise that "subject to grade and dockage" is available to producers on a voluntary basis in eastern Canada.

2. In the longer term, we recommend
    - Adding "subject to inspector's grade and dockage" to the special crops provisions of the Canada Grain Act to make it a statutory right for special crops producers
    - Including protein as part of the "subject to inspector's grade and dockage" service

Official Outward Inspection at Locations other than Terminal or Transfer Elevators

Revenue	Resource Levels
$920,000	Expenditures: $997,000 Person Years: 7

The CGC offers inspection services at primary elevators in western Canada for grain destined to the United States or Mexico, and eastern mills when it is requested by the shipper. Official samples are taken at prairie points and officially inspected using primary tolerances.

This service includes supervising the collection of representative samples, establishing grade, dockage, moisture and protein levels, or other inspection analyses, advising the elevator operator when the grain is contaminated or infested, and recording the results.

The purpose of this service is to provide third-party evaluation of quality using an official sample as opposed to a submitted sample. This service assists in the marketing of grain to the U.S. and to eastern mills because inspection and grading is performed using a more representative sample. This reduces the complaint rate from customers on grain destined to these locations and ensures fair and equitable payment. The complaint rate on grain destined to the U.S. has decreased from approximately 50 per cent to approximately 5 per cent with the implementation of this service.

Recommendations

The CGC should continue to offer this inspection service. However, the service should only be offered on a cost-plus basis.

Specific recommendations to improve this official outward inspection service

1. Restructure the fees for official prairie inspection.

2. Offer multiple car grading, subject to industry agreement on a protocol.

3. Implement the following service improvements to prairie official inspection
   - Increase scrutiny and approve primary elevator systems prior to CGC service delivery (i.e., samplers, loading facilities).
   - Develop and strictly enforce a new protocol for handling previously inspected samples when they arrive at terminal elevators.
   - Provide official grades based on export tolerances or on specifications provided by marketers.

Inward Inspection

Revenue	Resource Levels
$7,624,000	Expenditures: $13,929,000[1] Person Years: 160

The CGC is mandated by the *Canada Grain Act* to officially inspect each car or truck lot of western grain that is received by licensed terminal or transfer elevators, either at the terminal or transfer elevator or at an inland point prior to transport. This service includes supervising the collection of representative samples, establishing grade, dockage, moisture and protein levels, or other inspection analyses, advising the elevator operator when the grain is contaminated or infested, and recording the results. This service is part of the CGC's core mandate.

The main reasons for carrying out inward inspection are to collect samples to facilitate varietal monitoring, data collection, safety and infestation monitoring, to conduct studies on grading factors, and to provide an objective third-party arbitration function at the terminals.

Recommendations

In the short term, the CGC should continue to offer inward inspection on grain arriving at terminal elevators but the method of delivering the service should be altered to make it more cost effective. The new method should represent a base level of service for inward inspection. Customized services over and above this level of service should be negotiated and provided upon request.

While inward inspection is a useful service which contributes to the effectiveness of Canada's quality assurance system, it is not essential to maintaining Canada's reputation for grain quality. Therefore, the Canada Grain Act should be amended to permit optional inward inspection.

Specific recommendations for improving inward inspection in the short term are that

1. By August 1, 1999, the CGC should move to a central inspection process where
   - One CGC employee is located at each terminal elevator to collect the sample and determine the protein and moisture content on site.
   - Each sample is forwarded to a central location for official grading.
   - Part time staff are available during busy periods.

[1] The continuous work week in Vancouver and Prince Rupert has increased our costs since these estimates were calculated.

- Standard factor analysis (such as foreign material, ergot, sprout damage, or midge) is conducted on composite samples prepared biweekly or monthly instead of analyzing each unload sample. Note: this process will provide an average by grade rather than by carlot and, therefore, will speed grading. Nonetheless, the factor analysis will continue to be statistically sound.

2. CGC Inspection and weighing staff in terminal elevators should be co-located to better use staff and reduce costs.

3. Additional fees should be proposed for any customization to the revised base service.

4. Longer-term recommendations which require a change to the Canada Grain Act are to
   - Revise the Canada Grain Act to allow for flexibility in the provision of inward inspection as the industry evolves.
   - Offer a service whereby the CGC would audit company inspection processes and sampling procedures to facilitate the trade of grain between primary and terminal or transfer positions based on company-assigned grades assigned at unload.

Reinspection and Appeals

Revenue	Resource Levels
$224,000	Expenditures: $999,000 Person Years: 8

The reinspection and appeal service involves documenting, processing and re-inspecting grain samples submitted by producers or the trade when either believes that the initial inspection results are not accurate. The Canada Grain Act provides the opportunity to have a grade dispute reviewed and settled by appealing to the CGC. This is performed in a sequential process that can lead up to the Chief Grain Inspector for official or unofficial samples and to the Grain Appeal Tribunal for official inward samples representing grain delivered to a terminal elevator. This service is part of the CGC core mandate.

The Grain Appeal Tribunal consists of the Chair of the Appeal Tribunal who is employed by the CGC and two grain industry inspectors who do not have a stake in the grade under review.

The purpose of reinspection/appeals is to provide the industry and producers with an unbiased third-party recourse mechanism when agreement can't be reached on the previous inspection results.

Recommendations

1. The CGC should retain this service. However, improvements must be made so the service pays its way. The service could be eliminated in the future if car pooling disappears or if the industry no longer wants it or is not willing to pay to cover the costs.

2. Specific recommendations for the structure and fees of the reinspection-appeals service are to
   - Consult the industry to determine the feasibility of changing the three-step process to a two-step system where the first is the reinspection in the region and the second, reinspection by the Grain Appeal Tribunal.
   - Consult the industry to determine the feasibility of a Grain Appeal Tribunal chaired by the Office of the Chief Grain Inspector. If required, the Office of the Chief Grain Inspector would act as a tie-breaker during the appeal process.

3. Stop doing "unofficial" reinspections. To clarify
   - Charge a fee if a company employee who is tasked with reviewing samples to facilitate grade changes requests the CGC to review a sample.
   - Do not charge a fee when a company employee is seeking clarification on a grading factor in a sample.

4. Specific recommendations to improve the efficiency of the service are to
   - Develop and apply a formal process to approve new Grain Appeal Tribunal members. The process should include input from qualified CGC inspectors and consultation with existing Tribunal members.
   - Set up an appeal system that meets only on specific days (with flexibility) to allow better scheduling of resources.
   - Convene meetings of tribunal members as required to review crop conditions and standards to ensure that grading is done consistently by all members.

Outward Inspection

Revenue	Resource Levels
$13,807,000	Expenditures: $8,389,000 Person Years: 83

Outward inspection is the key to Canada's reputation for grain quality. The CGC is mandated by the Canada Grain Act to officially inspect all grain shipped from terminal elevators and all grain exported from transfer elevators. This service is part of the CGC's core mandate. Outward inspection includes the collection of representative samples, continuous assessment of grading factors throughout the loading process by analyzing the samples visually and instrumentally, providing advice to elevators on their performance, establishing the grade, and providing the appropriate documentation. Samples are collected for dispute resolution purposes, grain quality analysis, protein analysis, and infestation checks. Upon request, eastern grain exported from a transfer elevator may be inspected prior to export according to the policy on previously inspected eastern grain.

The Certificate Final certifies grades for cargoes. Alternatively, the Certificate of Quality is used when the grain is certified based on specifications rather than official grades. Letters of Analyses may accompany certificates. Monitoring samples for infestation purposes is done on every shipment and results are given to the Canadian Food Inspection Agency (CFIA) for phytosanitary certification purposes when required.

Recommendations

The service should be retained but changes should be implemented to improve it. Specific recommendations for improving outward inspection in the short term are to

1. Provide a base level of service with customized fee-for-service options such as
   - Grading by holds or by increment
   - Offering a variety of Certificate Final options so that the exporter can choose the degree of assurance required

2. Implement a "flying squad" concept with no permanent outward crews; crews would be spotted when and where vessels are being loaded. Phase in this concept, beginning August 1, 1999, in Thunder Bay.

3. Charge licensed facilities for travel and living expenses where no full-time CGC staff are on-site and outward inspection services are required (for example, in Eastern and Bay Ports regions).

4. Use part-time staff so there are people to draw from during busy periods or if customized services are requested.

5. Have the monitoring unit that is being established in Industry Services focus on outward inspection to ensure the outward inspection process is consistent across the country.

6. Seek ISO 9002 certification for the outward inspection process.

Quality Complaints

Revenue	Resource Levels
None	Direct Expenditures: $26,650 Person Years: 2

The CGC reviews all relevant records, samples, and circumstances related to loading to investigate complaints related to the quality of grain cargoes. If necessary, CGC inspection or laboratory experts consult with customers to investigate cargo quality. Generally, consultations are done over the phone. However, in some instances, it is necessary for staff to travel to the customer's country. The CGC provides on-site offloading supervision if requested.

The CGC has authority to investigate quality complaints under Part VI of the *Canada Grain Act*, Section 88 through Section 101. Investigating quality complaints is part of the CGC core mandate.

Recommendations

The CGC should continue to investigate quality complaints.

Costs should be recovered through all outward inspection fees, including official inspection at other than terminal and transfer elevators and direct hits. Travel costs should be recovered by charging the marketer on a case-by-case basis.

Specific recommendations to improve the service are

1. Improve communication of investigation results both internally and externally by
   - Developing a formal follow-up procedure to help prevent problems from recurring and to help reduce future complaints
   - Generating one official report for grain marketers which includes recommendations to change the system, if warranted
   - Formalizing the delivery of the investigation report

- Designating a "point person" with the marketer to receive the report and ensure it is passed on to the appropriate people

2. Clarify the meaning of the Certificate Final.

3. Clarify the responsibilities and accountabilities of all players.

4. Save incremental samples (this is part of the outward inspection mechanism). Increase the internal monitoring of samples.

Direct Hit Shipments: Inspection and Weighing

Revenue	Resource Levels
$278,000	Expenditures: $517,000 Person Years: No staff dedicated. Work is performed by those who provide GRS and outward weighing services.

Direct hit shipments are those where Canadian grains, oilseeds or pulses are transferred from trucks or rail cars directly to a vessel, without storage or with limited, identity preserved, unregistered storage. The grain must not be stored longer than twenty days unless permission is received from the Commission.

This service is available at licensed terminal or licensed transfer elevators and to shippers at unlicensed bulk handling facilities. Direct hit shipments of grain destined to the U.S. or anywhere in Canada do not have to be officially weighed. If the identity of the grain is preserved, an elevator can receive the grain without issuing an elevator receipt for the grain.

Direct hits provide an opportunity to reduce shipping costs and offer a level playing field for terminals and bulk handling facilities.

Recommendations

Official inspection and weighing of grain at export are fundamental to Canada's reputation for grain quality. Therefore, the CGC should continue providing this service on grain leaving Canada. It should also continue providing the service on domestic vessel shipments.

We propose that the CGC continue to provide this service in a simplified format. In addition, CGC should, in the longer term look for more opportunities to provide

weighing and inspection services for identity preserved grain, especially on U.S. shipments.

Specific recommendations to improve the direct hit service are to

1. Continue with the development and implementation of the proposed direct hit policy but
    - Establish a "direct hit licence" and fee for non-licensed users of this service to allow the CGC greater ability to protect the integrity of the quality assurance system.
    - Re-include official Prairie inspection in this policy.
    - Improve communication of the policy to staff and industry.

2. Fees
    - The fee should be increased to recover the cost of providing the service.
    - The fee should be assessed to the user of the service.
    - A consistent direct hit fee should be implemented to make the billing process easier (for example on a per tonne basis).
    - Additional travel and living costs should be billed to the user of the service.

Weighing

Direct Hit Shipments

Weighing and inspection services are discussed together on page 17.

Grain Receival Service and Dispute Settlement Mechanism

Revenues	Resource Levels
$1,906,000	Expenditures: $2,280,000 Person Years: 30

The CGC provides official weight certification for each car or truck lot of grain received at terminal elevators and generates supporting data for post unload investigations. The main purpose of this service is to ensure all parties receive proper credit for each lot of grain unloaded. This is a new service, introduced on January 15, 1998, to replace the old inward weighing service and is mandatory under the Canada Grain Act.

CGC staff investigate whenever a shipper, producer or other involved party questions an official weight or when our expertise dictates. Adjustments are made, if necessary, and the results are reported to the interested parties.

Other services depending on the grain receival service (GRS) include GIAS (grain inventory accounting system), statistics and registration and cancellation. These currently rely on CGC staff for timely information. Weighovers depend on the accurate information provided by registration. Freight charges and terminal cleaning charges are established according to weights supplied by the GRS. Inward inspection relies on proper identification of the car by GRS. Without GRS, either inspection staff or terminal staff will have to take on additional data collection work.

Assuming no mechanism replaced the GRS, there would be no third-party assessment of quantities of grain arriving at terminals or third-party assessment of the reasons for weight differences between shipper and receiver of the grain (dispute settlement). There would also be difficulties associated with the verification of weight, documentation or identification of about 20 per cent of all unloads. Terminal staff would have to collect information on the cars as they are unloaded and feed this information to GIAS. Cross-trained CGC staff would likely be charged with some of the tasks currently performed.

Recommendations

We propose in the short term (9 to 15 months) that the CGC continue with the GRS while making adjustments to fees which would allow better assessment of the

2. We also propose to begin immediately to work with the industry to develop a

system may require a change in the Canada Grain Act unless the Act can be interpreted to permit CGC certification of the quality management system at each

Under the new system, the CGC would contract with the companies to certify the quality management system. This would involve a degree of checking as well as

the contract would be charged at an hourly rate. Elements of the proposed quality management system might include

Optional GRS service from CGC staff including flexibility in scheduling unloads of grains whose owners request GRS, e.g., Producer cars and IP (identity

- Contractual agreement with owners of all inward grains regarding acceptability

- Contractual agreement with owners of all inward grains regarding a dispute settlement mechanism
- The CGC providing terminal and country elevator scale and weighing systems certification (including an ongoing inspection program)
- Some agreement on the timely provision of data for GIAS and registration

3. Recognizing that each terminal elevator has different needs, we should continue to tailor our services to most efficiently meet the needs of each elevator.

4. We propose a slight reduction in the GRS fee and the establishment of a separate fee for dispute settlement. This will allow us to assess the overall value of dispute settlement.

5. We recommend that the total amount recovered exceed the amount currently recovered by GRS, such that the full GRS costs are recovered. Implementation of this option would require that the responses to dispute settlement at Vancouver and Thunder Bay be harmonized so the quality of responses will be identical.

Outward Weighing

Revenues	Resource Levels
$7,241,000	Expenditures: $4,502,000 Person Years: 45

The CGC officially weighs all grain shipped from terminal elevators or exported from transfer elevators. This service, which is mandatory under the Canada Grain Act, includes ensuring that all grain is accurately weighed and recorded, and all weighed grain reaches the carrier, thus enabling weight certification. The Certificate Final indicates the official weight of cargoes.

Outward weighing provides the accurate assessment of total quantities shipped, including the weights of increments. These data are used in other CGC programs such as statistics and the cancellation of terminal elevator receipts, and by inspection staff to determine the weighted average cargo quality. It is also used as the basis for billing fees for inspection, the assessment of elevator tariffs, and laker and ocean freight charges.

Inspection and entomology depend on the integrity of delivery systems as well as the incremental weights to carry out their functions. This is particularly critical now that all sampling is remote and most delivery systems are remotely operated.

Loss of this service would have an impact on the Certificate Final and possibly a deleterious effect on Canada's ability to export grains. Much of the operation would have to be taken over by other third-party service providers—at industry's expense either on export or on arrival at destination. Loss of the service would also place extra demands on grain inspection staff in calculating weighted average cargo quality. There would also be an impact on our ability to cancel terminal receipts accurately and to conduct scale and weighing trend analyses on lakers between Thunder Bay and transfer elevators. The industry would have to provide, at its own expense, accurate data for statistical services.

Terminal operators not opting for third-party intervention would likely have to invest in more technology to improve the tracking of grain movement through their delivery systems (e.g., electronic sensors, closed circuit TV, event logs, etc.).

Recommendations

The Grain Inventory Accounting System (GIAS) is a system of electronic inventory records. The CGC regulates and controls grain inventory reporting by terminal elevator licensees. It prepares and analyzes official grain weighover statements and ensures operational compliance with the statute. The GIAS is an initiative by the grain industry, the Canadian Wheat Board and the Commission to replace paper documents with electronic data interchange.

Because the terminal elevator receipt is a negotiable document, the service is similar to a banking system. As regulator and operator, the CGC must maintain the integrity of the system and prevent errors. The value of terminal elevator receipts issued varies from $4 to $6 billion annually.

Data generated by the grain receival service and GIAS are used to develop statistical databases used by the industry. These data are also the basis of CGC fee assessments.

Without third-party registration and cancellation, the ability to use terminal elevator receipts as negotiable documents could be affected.

Recommendations

1. The CGC should continue to provide the service.
2. To provide the service more efficiently in the short-term, the CGC proposes to centralize registration and GIAS in Winnipeg.
3. Over the longer term, the CGC proposes to modify GIAS for use in Eastern Canada. As well, it will optimize data input for registration and cancellation in Montreal by using GIAS.

Weighovers

Revenues	Resource Levels
None	Expenditures: $825,000 Person Years: No staff dedicated.

The CGC performs the official weighover of all stocks in store at licensed terminal and transfer elevators, as required by law. These audits reconcile physical stocks with officially registered stocks to identify overages or shortages of grain.

There are no revenues or fees associated with CGC-initiated weighovers. If a weighover is requested by the industry, there is a fee of $0.22/tonne weighing and

$0.25/tonne inspection. Fees charged for the loading of vessels/cars during audits should be taken into account.

Weighover costs include weighing and inspection. Weighover resources are acquired from other operational services. During peak periods, there is sometimes a need to supplement the regular staff complement. Weighover costs in the Eastern and Bayport regions are largely travel related ; these correspond to the length of time required to complete the weighover. We perform 8 to 10 weighovers a year.

Weighover information is useful for reconciling registration and cancellation information. It is also used by grain company auditors. No other CGC services depend directly on weighovers.

Recommendations

1. We propose that the CGC continue to provide the service in the short term, but that the service become optional in the long term.

2. To improve the service in the short-term, the CGC proposes, where practical, to grade samples in a central location. This may not be necessary in terminals which have inspection staff available to assist during weighover periods.

3. Over the longer term, within two to three years, the CGC proposes to make weighovers optional. Under an optional system, the CGC would contract with terminals to provide this service. To achieve efficiencies, we would base the length of time between weighovers on the throughput of each individual terminal.

4. The CGC proposes that a fee be established to cover the total cost of weighovers, and that it be charged directly to the elevator operators.

Weigh Systems Inspection

Revenues	Resource Levels
None	Expenditures: $337,000 Person Years: 4

Under a Memorandum of Understanding from Measurement Canada, the CGC performs scheduled and emergency testing of weigh scales under the Weights and Measures Act for terminal and transfer elevators to ensure the accuracy of the equipment.

All weighing operations depend on accurate scales. Failure to assess a problem or adjust a scale may result in a significant loss of revenue to either the shipper or

receiver of grain. If the service were not provided by the CGC, the industry would have to find another certified third party to carry out the inspections. Official inspections by Measurement Canada inspectors are becoming much less frequent than the two years called for under the Weights and Measures Act.

Recommendations

1. The CGC proposes to continue to provide this service and considers it a business opportunity. In particular, the CGC will seek Measurement Canada certification in order to be able to certify all grain scales at terminals and in the country.

2. To provide this service more efficiently, we propose to train additional weigh staff to back up inspectors. Also, all service centers in the Prairie Region should have one cross-trained employee to conduct weight systems certification and official weighing at high throughput operations.

Research

Client surveys indicate the personnel and the work of the Grain Research Laboratory are held in high regard. The GRL is viewed as a center of excellence for grain quality research with the largest collection of grain quality researchers in Canada. These perceptions were reported in previous reviews and in recent consultations both in Canada and abroad.

An overriding priority for the CGC is to sharpen the focus of the GRL by developing new approaches to setting priorities, selecting new areas of research, and dropping unpromising work.

The CGC proposes that the core mandate of the GRL should be to

- Provide scientific and technical support to the quality assurance system.
- Understand what quality attributes are required for a wide range of end-use products.
- Understand how variety, environment and degrading factors influence quality attributes.
- Develop methods for the measurement and rapid prediction of end-use quality and safety.
- Monitor quality and safety.

We also see a need to adjust the GRL's fiscal arrangements to ensure that the beneficiaries of its services pay an appropriate share of the laboratory's expenses. In this regard, we see the GRL's funders as falling into three categories: the quality

assurance system (supported by CGC fees), the public interest (supported by federal government appropriation), and purchasers of GRL services (clients whose requests do not fit in the first two categories).

Research Funding Recommendations

1. It is recommended that the CGC ask the federal government for an increased appropriation for public benefit research. This is supported by all of our consultations with industry and would keep Canada's investment in end-use quality research more in line with that made by our competitors.

2. It is recommended that the GRL investigate and pursue sources of external grants that are consistent with its core mandate. It is, however, cautioned that these funds should supplement the GRL's budget and should not be viewed as a replacement for appropriation funding. It is also important that the GRL not devote excessive resources pursuing grants. All grant applications should be approved by the director and management team of the GRL.

3. It is recommended that GRL scientists undertake contract research programs, under guidelines which would include the following
   - Third-party impartiality of the CGC should not be not compromised.
   - The CGC should be protected from liability through the terms of the contract.
   - Contracts should be negotiated so that one company does not have ownership of any results that may benefit the entire industry. Instead the contract should allow them 1-2 years lead time to use the results before they are released publicly.
   - The value of the contract should exceed costs and a portion of the net revenues should be reinvested in the GRL.
   - The value of the contract should be at least large enough to cover the fixed costs of establishing a contract.

4. Approval for contract research should be granted by the director and management team of the GRL, taking the following factors into consideration
   - The relation of the research to our quality assurance mandate
   - The possibility of using under-utilized resources
   - The type of client (i.e., it is preferable to work with industry groups rather than individual companies to ensure that benefits are shared by the entire industry)

5. It is recommended that the costs of those GRL services that contribute directly to the operation of the quality assurance system be factored into the CGC inspection fees and, eventually, the quality assurance fee.

6. It is recommended that the costs of those GRL services that are outside its core mandate or directly requested by a client be recovered from the users of those services. If, after a reasonable phase-in period, these services are not being fully cost recovered, they should be discontinued.

The overall effects of these funding recommendations are summarized in the following table.

Proposed Sources of Grain Research Laboratory Funding by Activity			
Activity	Government Appropriation	CGC Fees	Cost Recovery
End-use Value Research	100%	0%	0%
End-use Methods Research	50%	50%	0%
Varietal ID Research	80%	20%	0%
Grain Safety Research	100%	0%	0%
Breeders' Lines	35%	0%	65%
Market Support	0%	40%	60%
Harvest Survey	0%	35%	65%
Cargo Quality Monitoring	0%	85%	15%
Certification	0%	0%	100%
Analytical Services			100%

General Research Recommendations

The GRL conducts research to support the quality assurance system in four general areas: End-use Quality, End-use Methods, Varietal Identification, and Grain Safety. Each of these research areas is discussed in detail in the following sections, but the following recommendations, designed to improve resource allocation and decision-making related to research priorities apply to all four.

Recommendations

It is recommended that an objective process for setting research priorities be developed and implemented to ensure that those areas that support the evolving

adequately addressed. The GRL has already developed a process for determining priority areas of research. This process should be reviewed and adapted, if necessary,

ensure that it allows for adequate input from the GRL Advisory Committee.

2.

timelines, reporting requirements, projected costs, clearly defined goals, and anticipated results and/or benefits. A peer review of each project should be

elsewhere. Project leaders should be held accountable for meeting reporting requirements, staying within projected timelines and budgets, and goal achievement

3. It is recommended that research priorities within the GRL be reassessed when a

area and not necessarily to staff the position left vacant by the retirement.

4.

major crops to provide the GRL with the technical expertise needed to support the quality assurance system.

It is recommended that allocation of research spending by crop, beyond the minimum levels determined to be necessary to provide the technical expertise needed to

described above.

6.

the least-cost method for the GRL to obtain the desired information. In some cases, it will be less expensive to use the results of research by other research institutions or to

7. It is recommended that efficiency be improved by centralizing some research

8. It is recommended that GRL-developed technology be patented or licensed whenever

assurance system is a good example of a technology that could be licensed for future revenue generation.

1. End-Use Quality Research

Revenues[2]	Resource Levels
None.	Person Years: 18

This research is directed at obtaining a better understanding of end-use quality and how it is influenced by variety, environment, processing conditions and degrading factors. It includes investigations into physical, physiological, biochemical, environmental and microbiological sources of end-use quality in wheat, barley and oilseeds. The end result is increased value from Canadian grain for processors which, ultimately, increases returns to producers.

The information generated is essential since it is used to specify grading factors and optimize the processing performance of Canadian grain. Canada is susceptible to a wide range of adverse growing and harvesting conditions which can lead to many different types and degrees of damage including frost, immaturity, diseases, weathering and sprout damage. End-use quality research is aimed at relating the visual appearance of grain to its value. For each type of visual damage, the degree and intensity of the deleterious effects on end processing quality are determined. Scientific support to visual grading is particularly important in years of extensive frost damage or wet harvests because it helps to maximize the amount of grain entering the top grades while protecting those grades from the harmful effects of the most serious damage.

End-use quality research also provides the foundation of such other GRL quality assurance activities as quality monitoring, investigating cargo complaints, and providing cargo certification. In addition, it yields information that can be passed on to breeders, providing guidance on the quality factors demanded in the marketplace.

Industry support for this research was clear from our consultations. For example, the CWB (Canadian Wheat Board) stated that it is an asset to the Canadian industry to have the GRL as a center for grain quality research and expertise. However, the CWB and other industry representatives felt that this research provides a public benefit and, as such, should be funded from government appropriation.

Discontinuing this research would threaten the scientific credibility of CGC and the scientific substructure of the quality assurance system. However, it is clear from

[2] GRL research receives federal government financial support. In 1997/98, this amounted to $5,189,000 for various types of support.

consultations with GRL staff and external researchers collaborating with the GRL that there are overlaps and duplication that should be eliminated. It is also evident that some of the research conducted by the Canadian International Grains Institute (CIGI). It would be to the mutual benefit of both organizations to establish a more formal shared use of expensive equipment and highly trained staff.

Recommendations

1.1 It is recommended that end-use quality research continue and that it be funded completely from government appropriation.

1.2 It is recommended that the main focus of each unit within the GRL be clearly defined to avoid overlap and duplication. Accordingly, the following recommendations are made with regard to end-use quality research for various crops

a) It is recommended that a closer tie be established with CIGI to avoid duplication of effort and increase the amount of collaborative, cost-shared research on wheat (see also Market Support recommendation 6.3, on page 36). Specifically, it is recommended that
   - The following units work more closely and pursue co-location with CIGI where possible
     - Durum Wheat Research
     - Laboratory Milling and Research
     - Bread Wheat Studies and Baking Research
     - Asian End Products
   - The GRL pilot mill be co-located as part of CIGI or shut down.
   - A study be undertaken to determine if the applied baking facilities of the GRL and CIGI can be co-located.

b) It is recommended that funding for majority of the costs associated with the Barley Genome Mapping Project be obtained from the breeding community and industry.

c) It is recommended that increased collaboration with CIGI be pursued if it builds a pilot malting plant.

d) It is recommended that decisions on the level of support to the pulse industry be made pending the outcome of discussions now underway with this industry.

2. End-Use Methods Research

Revenues	Resource Levels
None	Expenditures: $1,465,000 Person Years: 9

This research is directed towards developing new, improved methods (faster, more accurate, less costly, or more specific) to classify grains and oilseeds on the basis of their physical or biochemical properties and not necessarily on their visual appearance. In the case of wheat, these technologies will enable varieties, classes or end-use quality factors to be identified without the need for kernel visual distinguishability or KVD. Areas of research with the highest potential are near-infrared spectroscopy and digital imaging analysis for predicting end-use processing quality. More rapid, objective methods of assessing quality characteristics will benefit the entire grain industry by reducing the cost of grain handling and enabling the use of the IP (identity preservation) systems needed to meet the more specific quality needs of the end users.

Results from this area of research will provide direct support to IS by allowing for more rapid and accurate identification of grain quality characteristics. This research is also important in addressing the changes that will be needed in the quality assurance system as the grain handling industry evolves. As prairie grain elevators focus more on high throughput than on storage, it becomes increasingly important for producers to be able to deliver the right quality of grain to the elevator system. The development of an electronic process for grading and testing grains will allow for testing to at least approximate specification on the farm. Reflecting the importance of this research to the CGC and the industry, IS managers indicated that they would like to see increased efforts devoted to this area.

There is strong industry support for this research as indicated in the *Western Grain Marketing Panel Report* and a more recent report entitled *Grain and Grain Product Quality Assessment Directions for the Western Canadian Grain Industry*. This support stems from the potential for end-use quality methods research to reduce or eliminate reliance on KVD. The industry recognizes that reducing the need for KVD in the grading system will allow for the more rapid development of new varieties with improved agronomic performance and the characteristics to meet special market demands.

Discontinuing end-use methods research would erode Canada's competitive position in world markets. To remain competitive, the Canadian grain industry must develop

strategies to classify grain, cheaply and efficiently, into parcels with the specific quality characteristics demanded by the customer. Integral to this strategy is the development of rapid quality evaluation methods. As the agency responsible for the quality assurance system, the CGC is best able to lead and coordinate this research.

Recommendations

2.1 It is recommended that end-use methods research continue at the GRL and that its costs be recovered 50 per cent from government appropriation and 50 per cent from CGC inspection fees.

2.2 Image analysis is generally believed to have high potential as a method for determining end-use quality. However, it is very expensive. Unless funding from the RIOT initiative is forthcoming, the CGC must decide if it can afford image analysis research.

2.3 There must be sufficient end-use methods research done for all major crops to provide the GRL with the technical expertise needed to support the quality assurance system.

2.4 Rapid Methods Development Research (i.e., NIR) is clearly a priority area of end-use methods research.

3. Varietal Identification Research

Revenues	Resource Levels
None	Expenditures: $322,000 Person Years: 3

This research is focused on developing faster, more specific and accurate methods for the identification of grain, oilseed and pulse varieties, including those which are genetically modified. Work has begun in the development of semi-automated DNA-based varietal identification techniques that complement the biochemical protein-based methods currently used by the GRL. Establishing DNA fingerprints for grains and oilseeds will allow the CGC to identify varieties objectively. This new research will bring the CGC to the leading edge of varietal identification technology in response to industry's need for rapid objective methods. Once rapid DNA fingerprinting methods have been developed for laboratory varietal identification and GMO (genetically modified organism) detection, the next objective is to develop simple DNA testing kits for use at primary elevators and throughout the grain handling system.

The expertise and technology developed through varietal identification research support IS in its quality assurance activities by allowing for more rapid and accurate identification of grain and oilseed varieties.

The Western Grain Marketing Panel expressed strong support for efforts to develop technologies for rapid and inexpensive identification of varieties and classes of grain. Industry support for these efforts stems from the widely recognized need to eventually eliminate KVD from the Canadian grading system and the increasing customer demand for shipments by grain variety. There is also recognition of the need to provide assurances that there has been no commingling of GMOs and conventional crops, or to meet the requirements of labeling laws and international trade agreements.

Discontinuing varietal identification research would severely limit the CGC's ability to fulfill its vision of excellence in grain quality assurance because of industry trends requiring increased movement of IP grain, the need to identify GMOs and the elimination of KVD. It is important for the GRL to remain on the cutting edge of new technology in this area in order to maintain the scientific credibility of CGC that underlies the quality assurance system.

Recommendations

3.1 It is recommended that varietal identification research continue as a priority and that its costs be recovered 80 per cent from government appropriation and 20 per cent from CGC inspection fees.

3.2 It is recommended that varietal identification research program be strengthened by defining the GRL's role in biotechnology as it relates to the grain handling system and quality assessment. It is particularly important to clarify the GRL's mandate in this area relative to those of CFIA and AAFC.

4. Grain Safety Research

Revenues	Resource Levels
None. Costs associated with methods development are factored into fees charged for analytical tests to detect compounds.	Expenditures: $660,000 Person Years: 4

The Grain Safety unit conducts research to develop improved analytical methods for detecting pesticide residues, mycotoxins, heavy metals and fungi. It also studies the relationship between the level of toxic substances in grain and visual grading factors, and the impact of trace elements in processing of oilseeds. As an example of how this

research is used, work in mycology allows the CGC to set grading tolerances that reflect the impact of fungi on processing.

The GRL's grain safety research program provides in-depth knowledge of actual and potential toxic contaminants and constituents in Canadian grain. This knowledge contributes to the CGC's ability to perform scientifically valid analyses for monitoring and certification purposes. It also supports the CGC's role in the licensing process for agricultural chemicals by providing the basis for documented objections when the use of a particular chemical may lead to detectable residues in harvested grain. In the case of seed treatments, the Grain Safety unit works with industry and regulators to ensure that detectable dyes are used so that accidental admixtures of treated seed can be discovered before grain is loaded into ships.

Discontinuing grain safety research would diminish the credibility of the CGC and eventually reduce the competitiveness of Canadian grain, especially given the growing international importance of grain safety issues. The analytical methods developed in the Grain Safety unit provide the necessary precision and accuracy to ensure that Canadian grain exports meet the new standards that are continually being set. Grain safety monitoring, in conjunction with the quality assurance system, ensures that Canadian grain is not only safe, but meets the strictest international tolerances for toxic chemical contaminants.

Recommendations

4.1 It is recommended that grain safety research continue as an important support to the quality assurance system and that it be funded 100 per cent from government appropriation.

4.2 It is recommended that the Grain Safety unit be given the flexibility to contract out methods development work according to appropriate guidelines when this will allow for a lower cost or a faster means of implementing new methods.

4.3 It is recommended that the use of rapid tests such as ELISA be assessed where applicable to reduce costs and increase efficiency.

5. Breeders' Lines

Revenues	Resource Levels
None	Expenditures: $1,267,000 Person Years: 8

The GRL annually performs laboratory and pilot-scale evaluation of the end-use quality of over 200 breeder lines entered in as many as 10 co-op tests. These evaluations are the final stage of testing of new Canadian wheat and barley varieties for potential registration. The resulting quality data are provided to the various sub-committees of the Prairie Registration Recommending Committee for Grain (PRRCG) and are used to decide whether to support requests for registration. CGC specialists in KVD and in specific areas of end-use quality contribute their expertise to the PRRCG as members of appropriate subcommittees and evaluation teams. They interpret GRL quality data in the light of their intimate knowledge of changes in world processing technology and market needs and ensure that new varieties present no threat to the quality assurance system. They also recommend changes in quality targets to breeders, as appropriate, on the basis of their discussions with grain processors and buyers in North America and overseas.

The CGC is responsible for establishing and maintaining standards of quality for Canadian grain and for regulating handling to ensure a dependable commodity for domestic and export markets. A cornerstone of this system is the varietal quality control provided by the Western Canadian registration system. Official grade definitions for milling wheat and malting barley (as they appear in the Canadian Grain Regulations) include varietal standards which ensure that only varieties that meet minimum end-use quality standards are registered.

The GRL provides a link between market place quality requirements and the plant breeder. Largely as a result of this link, changing market demands have been satisfied by new varieties with the required end-use quality characteristics while at the same time maintaining agronomic performance. In addition, GRL scientists find that their participation in the evaluation of breeders lines provides them with information used in discussions with processors and buyers of Canadian grains.

The GRL Advisory Committee strongly supported the initiative to recover the costs of evaluating new lines of wheat and barley, especially since the same services are not provided free of charge for other crops. However, the CGC believes full cost recovery

is inappropriate because it is in the interests of the quality assurance system to ensure that new varieties have the required end-use quality.

Recommendations

5.1 It is recommended that the GRL continue to provide this service, but 65 per cent cost recovery should be pursued through negotiations with plant breeders.

5.2 If cost recovery results in breeders using other labs for the end-use quality evaluations required by the registration process, it is recommended that the GRL seek to certify these labs so that the quality of their results can be assured.

5.3 It is recommended that the CGC initiate a review within the PRRCG of the quality testing protocol to determine what tests are essential for the registration process.

6. Market Support

Revenues	Resource Levels
None	Expenditures: $1,696,000 Person Years: 8

Market support activities include anything done to provide technical advice on grain quality and end uses in support of the sales efforts of Canada's marketers. This includes pilot testing of new varieties to provide the CWB with information for use in market development activities, participation in the CWB farm tours and market development missions, involvement in CIGI programs (including travel, presentations, tours), and technical advice and assistance to marketers on issues related to grain safety.

These activities foster information exchanges between GRL scientists and end users of Canadian grain. This is important in keeping the GRL informed of changes in the grain processing industries around the world that will alter the specific quality attributes buyers will want from Canadian grain in the future. This helps GRL scientists direct their research in support of the quality assurance system and allows the GRL to play an important role in conveying this information to plant breeders. There is also an important public relations component to many market support activities. For example, presentations to industry and producers give them some idea of the work of the GRL and the importance of research in maintaining Canada's competitive edge.

The marketing and uses of Canadian grains and oilseeds are becoming increasingly sophisticated and scientific. Marketers now find that scientific technical support is necessary when doing business in the international marketplace. The main benefits of the GRL's market support activities are maintaining and sometimes increasing

Canada's market share in international grain markets. The CWB told us that the GRL's technical support makes an important contribution to its sales efforts. Customers are impressed with the knowledge that the GRL scientists bring to these activities and the CWB feels it is important to have an objective third-party backing up their claims of the quality of Canadian wheat and barley. It believes that some of the GRL's market support activities can be called a public good because of the positive impact on exports, balance of trade, and the economy. Other industry representatives indicated that the GRL should either charge the CWB for these services or provide other marketers the same level of market support free of charge.

If all market support activities were discontinued, the GRL would have to find other ways of keeping abreast of changes in grain processing and quality needs around the world. Scientists would continue to travel to foreign countries, but the trips would be less frequent and would be dictated by the scientist's information needs rather than the needs of the marketer.

Recommendations

6.1 It is recommended that market support continue only if those costs in excess of its value to the quality assurance system can be recovered from the marketers and industry groups who benefit from this support. The value of market support to the quality assurance system should be calculated by first determining how the required information would be gathered in the absence of market support, and then estimating the cost of this alternative method of obtaining information. Our preliminary estimate is that this cost would be about 40 per cent of the current expenditures on market support, suggesting that cost recovery should cover the remaining 60 per cent.

6.2 It is recommended that the CGC recover the full costs of preparing and analyzing marketing samples and related quality evaluations.

6.3 It is recommended that the CGC enter into formal negotiations with CIGI to clarify our respective market support roles and establish a MOU outlining a reciprocal arrangement with respect to our support to their market support activities and their support to our research activities (such as sharing equipment and staff).

6.4 It is recommended that the GRL be involved in the planning of market support travel to ensure that itineraries provide GRL staff with enough time to gather technical information.

7. Harvest Survey

Revenues	Resource Levels
None	Expenditures: $1,568,000[3] Person Years: 10

Samples collected from producers in the annual harvest survey are used to assess the quality of each year's crops. The survey typically begins in middle to late August and takes two to three months to complete for wheat and barley and a little longer for oilseeds. Samples are sorted by class, cleaned, graded and then tested for protein and moisture using NIR instruments. Data are entered into the harvest survey database and are used to map the distribution of protein and grading factors. The GRL then conducts quality analyses of composite samples to provide detailed information on the quality characteristics of the various segregations, grades, and classes of major Canadian grains. This information is presented on the CGC web site and published in CWB brochures.

Harvest survey samples are also used by the GRL to monitor each year's crop for toxic contaminants. For example, wheat samples are monitored for the presence of Fusarium-damaged kernels to map the occurrence of Fusarium species in Western Canada. Samples are also tested for the presence of heavy metals in various wheat classes, flax and linola in response to increasing interest from marketers.

The results of the harvest survey are a valuable marketing tool for the CWB and other grain sellers and allow processors to determine how future shipments of Canadian grain may perform in their facilities.

While the information generated by the harvest survey is primarily a marketing tool, it also supports the quality assurance system by providing an understanding of the overall quality of each year's crops and contributes to our understanding of the extent and effect of degrading factors. In addition, harvest survey samples are analyzed for toxic contaminants, contributing to the GRL's ability to issue scientifically valid and credible statements of assurance.

The CWB and other marketers have told us that information on the quality characteristics of each years' crop is a valuable marketing tool that allows them to plan their sales to match customer quality demands with available supply. They also noted that processors find the information useful because it allows them to estimate

[3] The Harvest Survey was streamlined in 1997/98 with the result that it now costs less than $1 million.

how future shipments of Canadian grain will perform in their facilities and that competing countries all supply similar information on their annual crops. If the CGC did not conduct an annual harvest survey, the CWB would have to find an alternative method to obtain information on the quality characteristics of the various segregations, grades, and classes of wheat and malting barley.

Discontinuing the harvest survey would clearly be more detrimental to marketers than to the CGC's ability to operate the quality assurance system. The CGC would have to maintain some minimal level of sampling and analysis to obtain information about each year's crop.

Recommendations

7.1 It is recommended that the harvest survey continue only if those costs in excess of its value to the quality assurance system can be recovered from the marketers and industry groups who use the results of the survey. The value of the harvest survey to the quality assurance system should be calculated by first determining how the required information would be gathered in the absence of the harvest survey, and then estimating the cost of this alternative method of obtaining information. Our preliminary estimate is that this cost would be about 35 per cent of the current expenditures on the harvest survey, suggesting that cost recovery should cover the remaining 65 per cent.

7.2 It is recommended that the amount, terms and level of payment should be determined through negotiation with those who use the survey results. Negotiations will also allow those who pay to prescribe how survey results will be disseminated as well as influence what crops, tests, and level of detail will be included in the survey.

8. Cargo Quality Monitoring

Revenues	Resource Levels
None	Expenditures: $1,096,000 Person Years: 10

Cargo quality monitoring provides a measure of the average quality of shipments of Canadian grain over a specified period of time. Cargo samples are taken at loading. These are used to make up composite samples for each of the segregations, grades and classes of the major Canadian grains and oilseeds for the testing period in question. The GRL conducts quality analyses of the composite samples to generate information on the quality characteristics of shipments which is then published on the CGC web site. Changes to the testing frequency and reporting, as well as the number

of tests performed, are currently being negotiated with the CWB as the main external client of this information.

In addition, the GRL conducts biochemical tests to monitor the varietal content of the CWRS composite samples and of selected vessel loadings of CWRS and CWES wheat and malting barley. Cargo samples are also used to monitor shipments for the presence of pesticide residues, mycotoxins, toxic elements and particular weed seeds that are restricted by some importing countries to ensure all international food safety standards are met.

Other activities included in cargo quality are investigating cargo complaints and overseas trouble shooting.

Cargo quality monitoring provides an important measure of how effective the quality assurance system and grade standards are in ensuring year-to-year consistency in the quality of each grade. The long term historical database on cargo quality that is generated from this monitoring is used when issuing statements of assurance. It is also used by the GRL to update its knowledge of the ongoing average quality of cargo shipments and to determine the extent to which the harvest survey accurately predicts the quality of subsequent cargo shipments.

The CWB told us that cargo quality monitoring helps promote sales by demonstrating the ongoing consistent quality of Canadian wheat that is the result of the Canadian grading, registration and grain handling system.

Discontinuing cargo monitoring would leave the CGC with no reliable, objective and ongoing measure of its overall success in operating the quality assurance system. Marketers would lose a valuable marketing tool.

Recommendations

8.1 It is recommended that cargo quality monitoring continue, with 85 per cent of the costs built into the CGC inspection fees and 15 per cent of the costs recovered from the marketers who use the data generated from this monitoring.

8.2 It is recommended that the costs of investigating cargo complaints be built into CGC inspection fees.

8.3 It is recommended that the GRL and the CWB conclude negotiations that began in March of 1998 on the needs for cargo quality data.

9. Certification

Revenues	Resource Levels
$1,500,000	Expenditures: $1,069,000 Person Years: 6

The CGC issues certificates of analysis and statements of assurance for specific quality factors or grain safety matters at the request of buyers and marketers. Quality factors include varietal purity, glucosinolate, erucic acid, and chlorophyll content of canola, and fatty acid composition and protein and oil content of oilseeds. Grain safety concerns are related to pesticide residues, mycotoxins, heavy metals and micro-organisms.

Certificates are usually issued for cargoes and are based on analyses conducted on the official CGC loading sample. Statements of assurance are not based on analyses conducted on samples, but are instead based on the GRL's database developed from monitoring of each year's crop and cargo composite samples. This information allows the GRL to ensure, certify and document that Canadian grain meets Canadian safety standards as well as those of our customer countries.

Certification is the main service the GRL provides to clients for a fee. It is dependent on support from other GRL activities, specifically grain safety research, varietal identification research, and oilseeds research. Certification fees provide the GRL with an opportunity to recover the some of the costs of these activities

Industry support for the GRL's certification services is evidenced by its willingness to pay for this service. Increased market demands for specific varieties and food safety assurances suggest that industry will continue to support this service. Grain exporters have been under increasing pressure from international customers to provide guarantees and assurances on safety related matters in response to the global proliferation of food safety legislation.

The CGC is in a unique position to provide the certification marketers need. The GRL's database, developed from its monitoring of quality and safety, means the CGC is the only agency able to offer statements of assurance.

Recommendations

9.1 It is recommended that the certification provided by the GRL continue and that the full costs of providing certification be 100 per cent recovered through the fees. Accordingly, it is further recommended that

- The fees for statements of assurance are set to reflect the value of this service;

- The fees for certificates are reviewed to ensure they are set to reflect the full costs, including the costs of capital equipment, methods development and the liability risk.

9.2 It is recommended that a central contact point for all requests for certificates and statements of assurance be established.

9.3 It is recommended that, where feasible, the facilities for providing the tests required for certification be moved to the ports in order to ensure timely issuance of certificates.

9.4 It is recommended that as the GRL develops the technological capability for GMO (genetically modified organism) analysis, the GRL position itself to be the main provider of certification analysis of GMO grains and oilseeds.

10. Analytical Services

Revenues	Resource Levels
$45,000	Expenditures: $829,000 Person Years: 6

The GRL conducts analysis on unofficial samples supplied by external clients and on either official or unofficial samples for internal clients. Analyses provided include varietal purity, glucosinolate, erucic acid, and chlorophyll content of canola, fatty acid composition and protein and oil content of oilseeds, and NIR determination of moisture, oil and protein content.

Letters of analysis are used to convey the results of requested analyses to external clients. They differ from certificates (described in the preceding section) in that the usually apply to a smaller unit of grain or oilseeds (e.g., a carlot) and are based on analyses conducted on either an official CGC sample or a submitted sample. Internal reports are used to convey results to internal clients.

Analytical services play an integral role in most GRL activities, including end-use quality and methods research, breeder's lines, the harvest survey, and cargo monitoring. These analyses are also requested to support IS certification services. Timeliness has been an issue with IS because they have not always been able to meet their customers needs due to the late receipt of results from the GRL.

Industry demand for analytical services has been gradually increasing. The GRL has been meeting this demand, but has not organized for a more business-like provision of this service, nor has it advertised to increase business.

Discontinuing analytical services is not an option because they are integral to other activities of the CGC.

Recommendations

10.1 It is recommended that the CGC set up a separate cost center for providing the following routine analytical services

- falling number
- moisture testing
- protein determination
- check samples for oilseeds, flour and moisture
- calibration services
- rapid toxin/residue testing
- routine grain safety testing
- routine varietal identification

10.2 It is recommended that the GRL be responsible for the quality control of any routine analytical services offered by the CGC. This would include the provision of check samples and monitoring for consistency and accuracy.

10.3 It is recommended that the capacity to carry out routine testing be transferred to the regional offices, if feasible, when there is a demand for timely results.

10.4 It is recommended that the CGC certify labs in Ontario to provide analytical services demanded by the Ontario industry that are beyond the capacities of the CGC regional offices (e.g., fatty acid profiles for oilseeds).

Grain Sanitation: Inward Testing

Revenues	Resource Levels
None	Expenditures: $288,000 Person Years: 4

This service is provided to determine level of grain infestation from shippers and to identify and manage infested grain at terminal unloads. Monitoring includes survey, direct hits, producer and suspect cars. The information generated is provided to grain

handling facilities and is used by them to identity preserve infested grain, to identify the shipper and sources of infested grain.

The CGC recommends control strategies when infestation is detected inwards. The information provided to the CWB affords them with an awareness of flagged stations (primary elevators) for board grains. In turn, CWB initiates requests for infestation free grain if ordering from a flagged station. The domestic industry (milling, etc.) and Canadian consumers benefit from this service by having access to infestation free grain.

Entomology is a mandated core service that is a component of quality assurance in grain destined for the export market. If the CGA is not amended, and if the CGC did not conduct grain sanitation testing, there would be a need for another party to undertake this testing.

No other CGC services depend on grain sanitation inward testing; however, this service is linked with inward inspection. If inward inspection is terminated, alternative sampling protocols would need to be developed to allow inward entomological testing to continue.

Termination of inward entomological testing could result in increased infestation throughout the grain handling system and an increased risk of infestation reaching export position. This would likely result in larger volumes of grain being treated at any one time and less available for export. It would put sole responsibility on outward entomological testing for infestation detection and control. While the CGC could rely exclusively on outwards testing for monitoring grain quality, the precepts of good commodity management suggest that monitoring for infestation as early in system as possible is preferable to waiting until after unload when potential for contamination is greater.

Recommendations

1. The CGC proposes to continue providing this service.

2. To offer the service more efficiently, we propose to reduce the number of samples tested by using a statistically valid sampling model. Currently more samples are tested than are actually required. A statistically valid model based on risk assessment would mean that 20 per cent of Canadian and U.S. rail cars would be tested at random, and 100 per cent of direct hit, producer cars and suspect cars would be tested. (A suspect car originates from elevators already identified as having had infestation problems.)

3. Testing requested by clients above the 20 per cent (survey) level should be recovered through fee-for-service charges on a per test basis.

4. For infested railcar/truck testing, fees should be assessed on a per offense basis.

5. The cost of inward testing to a level of 20 per cent as required by the CGC should continue to be recovered from outward inspection fees.

6. Testing requested by clients above the 20 per cent level should be 100 per cent cost recovered through fee-for-service charges on a per test basis. The rationale is that testing more than 20 per cent provides very little improvement in monitoring/control and this is work done for a client which is not required by the CGC.

7. The cost of infested railcar/truck testing should be billed to the shipper in accordance with existing policy.

Grain Sanitation: Outward Testing

Revenues	Resource Levels
$3,500[4]	Expenditures: $288,000 Person Years: 4

Outward testing is performed to identify and manage insect infestation at loading for export. All rail cars bound for the U.S. are sampled and 20 per cent of samples are tested for infestation. If infestation is detected, the rest of the samples in the train are tested.

Information generated benefits marketers and brokers by ensuring that grain for sale is essentially infestation free. Testing outwards ensures compliance with the statutes and provides the shipper with the knowledge and assurance that the CGC will defend its position should a customer complaint arise regarding infestation of the grain. Information is of value to the companies for monitoring their overall protocols for stored grain. If the grain is constantly found to be infested, then that grain handling company would lose business. In the case of shipments to the U.S., the protocol established by the CGC and CWB saves the marketer money by ensuring that any problems with infested grain are dealt with before the shipment is received.

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[4] This results from a fee introduced August 1, 1998 in Prairie Region only.

Entomology is a mandated core service that is a component of quality assurance in grain destined for the export market. If the CGC did not conduct grain sanitation testing there would be a need for another party to undertake this testing. Further, the Canadian Food Inspection Agency (CFIA) would have to find some means of obtaining samples and testing grain outwards in cases where phytosanitary certification is necessary.

Termination of outwards entomological testing could result in serious consequences to the reputation of the Canadian grain industry if infestations went undetected in exported grain.

Recommendations

The CGC proposes to continue offering the service. To make the service more efficient, we propose the following measures

1. Continue to test U.S. bound trains at 20 per cent
2. Continue to test audit samples, vessel samples and suspect bins at 100 per cent
3. For vessel loading, collect samples on a per tonne basis providing more consistent information to industry and more equitable distribution of costs between large and small facilities
4. Continuously test samples on-site during the loading process to provide more accurate identification of where the infestation is located. This would allow industry to pinpoint infestation and reduce the amount of fumigation necessary.
5. Provide information on more timely basis. This should be a logical consequence of continuously testing samples on site.
6. Testing requested by clients above the 20 per cent level for railcars should be recovered from the appropriate clients through fee-for-service charges on per test basis.
7. The cost of outward testing should be recovered from outward inspection fees.
8. Testing samples requested by clients (including that required for phytosanitary certificates) above the 20 per cent level should be 100 per cent cost recovered from appropriate clients through fee-for-service charges on a per test basis. The rationale is that testing more than 20 per cent provides very little improvement in the CGC's monitoring and control and therefore is done solely for the benefit of the client requesting the service.

Elevator Sanitation

Revenues	Resource Levels
None	Expenditures: $303,000 Person Years: 4

This service is conducted by the CGC under a memorandum of understanding (MOU) with CFIA to monitor compliance of terminal and transfer elevators with sanitation criteria specified by the Plant Protection Act. Information provided to the CFIA permits issuance of phytosanitary certificates to elevator companies.

No other CGC services depend on this service. Under the existing MOU, the CFIA depends on this service. Termination of elevator sanitation service would free up approximately 40 per cent of the human and material resources dedicated to entomological testing.

Clients have indicated they want a single provider of this service and that they would prefer to have the CGC.

Recommendations

1. The CGC proposes to continue to offer the service.
2. The CGC proposes to renegotiate the MOU with CFIA with the objectives of becoming the sole agency for phytosanitary certification of grain facilities and making the service cost-recovered.
3. The cost for this service should be based on licensed capacity and actual throughput so that smaller facilities do not subsidize larger ones. Service charges should be invoiced to the operator of the facility.
4. Because elevator sanitation serves the public good, a portion should be recovered from government appropriation (as is the case with phytosanitary services provided by the CFIA).
5. If this service is not completely cost recovered, unrecovered costs should be covered by outward inspection fees, as clean elevators make a positive contribution to the quality of grain Canada exports.

Licensing

Revenues	Resource Levels
$223,000	Expenditures: $678,000 Person Years: 5

The Canada Grain Act requires that all grain elevators and grain dealers be licensed by the CGC. The primary purpose of licensing is to protect the integrity of the grain grading system, and maintain standards of quality for Canadian grain. Licensing allows elevators and grain dealers to use CGC grades and grade names, but also means that they are responsible for ensuring that their facilities and operations meet CGC standards.

Our client survey indicated strong agreement that all elevators and grain dealers dealing in western grain should be licensed, and that licensing is in the public interest. There was significant agreement that licensing should recover its costs, that is, with no cross-subsidization from other CGC services, or government support. There was minimal support for the notion that elevators and grain dealers should be licensed by a self-regulated industry organization.

Recommendations

1. The Commission recommends that it continue to license elevators and grain dealers, to provide a basis for the regulation of the grain industry, for the maintenance of quality standards for Canadian grain.

2. The purpose of licensing should be clearly defined, based on principles related to grain quality, and the purpose and principles, as well as value to producers and licensees, should be communicated to the industry.

3. The service could be delivered more efficiently, through enhanced use of electronic completion and submission of forms.

4. Licensing fees should cover the costs of the licensing and security program (See also Producer Security, page 48).

Producer Security

Revenues	Resource Levels
None	Expenditures: $560,000 Person Years: 5

Licensed elevators and grain dealers are required to provide security, in the form of a bond or letter of credit, to the CGC, to cover outstanding payments to producers for grain, in the case of financial failure.

The CGC assesses the business of prospective licensees, and fixes the amount of security to be provided in order to obtain a licence. The CGC conducts audits of licensees in order to ensure an appropriate amount of security has been provided.

Security covers outstanding payments for grain, for 90 days from the day the grain is delivered and the producer receives a grain receipt or elevator receipt, but coverage is reduced to 30 days from the time the producer receives a cash purchase ticket or cheque.

The security/audit program is funded by licensing fees and fees for other CGC services, such as grain inspection. Indirect costs to the CGC for executive, legal (including litigation), and communications services are significant but difficult to quantify.

Licensees not only pay the costs of a bond or letter of credit, they must provide collateral to support the bond or letter of credit, thus reducing their access to operating credit. Industry costs vary between $2 and $3 million annually.

The costs of the program, which producers ultimately pay, must be weighed against the benefit to producers.

Smaller grain dealers, rather than elevator companies, have been responsible for the majority of licensee financial failures. Only a small percentage of licensees poses a significant risk of non-payment for grain. Administration costs for that small number are also greater, given the additional monitoring they require.

Elimination of the security program would have the following impacts

- Producers would lose a valuable benefit; the benefit has varying degrees of value to producers, depending on whether or not an individual producer chooses to sell grain to a higher risk buyer
- It would reduce combined CGC-industry costs by $3 to $4 million; these savings may be passed on to producers.

- There would be a reduction in demand on CGC executive, legal, and communications resources, and reduced enforcement costs and exposure to liability.

In 1998, the Canada Grain Act was amended to create a special crops dealer licence and to modify the requirement that licensees post security to cover liabilities to producers. When the amendments take effect, licensees dealing in special crops will not be required to post security for those crops. Instead, producers will have the option of protection under a special crops insurance plan. An implementation date has not been decided, but the CGC has recommended that the amendments be put into effect August 1, 1999.

Recommendations

1. The Commission proposes to maintain the Canada Grain Act requirement that licensees provide security to cover outstanding liabilities to farmers.

2. After producers and industry have had sufficient experience with the new special crops provisions, the Commission will consult them on the efficacy of the program and the feasibility of extending it to cover other grains.

3. The Commission proposes to recover all costs of administering the security program from licensing fees.

Producer Car Program

Revenues	Resource Levels
$83,000	Expenditures: $205,000 Person Years: 2

The Canada Grain Act entitles producers to apply to load a railway car with grain to be transported to a terminal elevator, or other receiver of the grain. The Act requires the CGC to allocate to producers, available railway cars, to such number as the CGC decides is appropriate. The purpose of the producer car program is to provide producers with an alternative to delivering grain to a primary elevator.

The program eliminates elevation charges at primary elevators, and provides producers with an opportunity to obtain official inspection and weighing.

Producers pay an application fee of $20.00 per car. Any deficit is covered by cross-subsidization.

Our survey showed strong agreement with the notion that application fees cover the costs of producer cars, and moderate support for continued CGC administration of the program.

Recommendations

1. The CGC proposes that the producer car program be maintained in its current form for the time being.

2. Application fees should be increased to cover direct costs to the CGC, and contribute to overhead.

Statistics

Grain Handling Statistics Publications

Revenues	Resource Levels
$28,000	Expenditures: $200,000 Person Years: 5

The CGC publishes and distributes the following publications

- *Grain Statistics Weekly*: a weekly publication on grain handlings, commercial stocks and prices.
- *Visible Grain Supplies and Disposition*: an annual publication of year-end grain statistics as well as additional production figures supplied by Statistics Canada.
- *Exports of Canadian Grain and Wheat Flour*: a monthly bulletin of grain exports by port and by country of destination.
- *Canadian Grain Exports*: an annual bulletin that of final export figures previously published in the monthly export publication. It includes tables on the cost of moving wheat, ocean freight rates and historical graphs.
- *Grain Deliveries at Prairie Points*: an annual publication that identifies the crop-year deliveries of individual grains by station/railway/shipping block/train run.

While all of the publications are used throughout the industry, three publications are considered more useful. The Commission proposes to continue to publish

- *Grain Statistics Weekly*
- *Exports of Canadian Grain and Wheat Flour*
- *Canadian Grain Exports*

Recommendations

We propose to cease publication of *Visible Grain Supplies and Disposition* and *Grain Deliveries at Prairie Points.*

Additional measures to make this service more efficient include reducing printing costs by encouraging Internet subscriptions, and decreasing staff requirements, where possible, through automation.

Grain Quality Statistics

Revenues	Resource Levels
None	Expenditures: $253,000 Person Years: 4

Most routine grain quality statistics gathered are related to the inward and outward inspection and weighing operations. Additional data may be gathered through the submitted samples and outward car shipping programs.

The staff are also responsible for performance measurement, operational software development, documentation and training, master file maintenance, protein segregation program, some operational equipment evaluation, and other related projects requiring statistical, financial and analytical expertise.

Many CGC operations rely on this service

- Various certification and documentation services
- Various dispute resolution services
- Grain quality tracking
- Grain grade tolerances
- Numerous systems associated with grain movement and handling
- CWB payments to primary shippers
- CGC statistical reporting
- CGC revenue system

Recommendation

The CGC proposes to continue this service. Our review identified numerous internal measures for making this service more efficient. These have been directed to managers for immediate action.

GRL Harvest Survey And Cargo Quality Information Dissemination

Revenues	Resource Levels
None	Expenditures: N/A Person Years: N/A

The GRL harvest survey information is used by external clients such as the Canadian Wheat Board, exporters and grain companies to source the right quality of grains and oilseeds for customer needs, and by sellers, buyers and processors to assess the potential performance of new crop grains and oilseeds.

Internally, information from this program is used as a measure of the success of variety control and grading systems, which are the key elements of the CGC's quality assurance mandate.

Failure to generate this information would require that other organizations take the lead in assessing the quality of Canadian grains and oilseeds. This would have a severe negative impact on our ability to carry out our quality assurance mandate.

Recommendations

1. The cost of data dissemination should be shared with clients.

Appendix

CGC Vision

Excellence in grain quality assurance.

Elements of the CGC vision

- we will maintain unbiased 3rd party objectivity
- we will do what's good for the entire grain industry
- the quality of grains, oilseeds and pulses is the focal point of our expertise
- quality is anything that enhances the value of Canadian grain.
- we are a business-like government organization
  - ⇒ we will ask "Does it make sense?"
  - ⇒ we will work to our strengths
  - ⇒ we will focus on client needs
  - ⇒ we will generate an annual operating surplus
- we will consider any commercial opportunity that does not compromise or give away our (Canadian) competitive edge

All of the elements of the CGC vision must be in place. The CGC's future viability has to be assured. The service needs of the CGC's clients must be met.

The program review must generate strategic recommendations to ensure that those objectives are achieved.

The recommendations must be developed while ensuring that the CGC

- continues to be focused on quality assurance and third-party objectivity, its pillars since 1912
- has in place what is essential to its future mandate
- maintains a viable, business-like organization so that it can adapt to its changing mandate
- delivers its programs in as efficient a manner as possible in order to reduce the financial impact on clients

Committees will review an identified list of programs and develop specific recommendations about

- whether or not to retain a program that is not part of the CGC's core mandate and the potential savings and impacts if a program is terminated
- how to deliver retained programs more efficiently or at lower cost and the potential savings
- the approach to be taken in recovering the cost of the programs (whether from fees or from other programs) and the targeted revenue
- priorities for allocating scarce resources
- new programs or services that have revenue generating potential and that fit with the CGC's core mandate
- changes to the Canada Grain Act that are needed

CGC Revenue and Expenditures

	Actual 1995-96	Actual 1996-97	Actual 1997-98	Budget 1998-99
REVENUE				
Service fees	43,561,625	39,862,573	48,262,634	38,771,328
Recoverable costs	4,959,129	6,380,658	5,984,483	6,451,008
Recoverable overtime	1,333,162	1,073,035	1,070,583	659,667
Japanese certification	979,485	1,082,954	946,086	900,000
Miscellaneous fees	673,741	686,135	745,816	1,790,025
License fees	135,015	222,895	225,840	254,380
Proceeds from sales	46,343	39,293	41,834	36,100
TOTAL	51,688,500	49,347,543	57,277,276	48,862,508
EXPENDITURES				
Advertising	84,851	41,216	62,518	151,292
Amortization	1,951,783	1,886,884	1,712,194	1,742,226
Bad debt expense	—	—	—	—
Interest (ANCAFA)	48,881	—	—	29,619
Material & supplies	1,077,710	1,610,387	1,682,471	1,445,744
Miscellaneous expenses	39,187	(6,709)	87,239	22,573
Postage /freight	353,766	364,918	329,210	354,087
Professional/special services	455,041	514,546	560,412	950,048
Publications/ printing	198,623	235,303	237,553	308,428
Relocation	83,530	92,541	180,166	264,000
Rent	3,432,147	3,542,793	3,257,244	3,373,323
Repairs & maintenance	290,971	360,197	366,114	501,967
Salaries and benefits	39,143,737	39,693,234	44,703,721	46,695,210
Telecommunications	613,919	691,131	670,901	845,110
Temporary help	16,373	1,703	36,750	42,504
Training	196,147	308,853	299,099	324,598
Travel, operational	986,355	1,368,791	1,428,145	1,317,487
Travel, training/ conference	123,266	178,193	156,852	439,109
Gain/loss on disp. of asset	10,670	21,703	3,505	—
TOTAL	49,106,957	50,905,684	55,774,094	58,807,325
NET SURPLUS/(DEFICIT)	2,581,543	(1,558,141)	1,503,182	(9,944,817)